

# 裸花属——中国一新记录属及其生物地理学意义

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(中国科学院西双版纳热带植物园昆明分部 昆明 650223)

## *Gymnanthes* Sw. (Euphorbiaceae), a genus new to China and its biogeographical implication

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**Key words** *Gymnanthes* Sw.; *Gymnanthes remota* (Steenis) Esser; New record to China

**关键词** 裸花属; 云南裸花; 中国新记录属

裸花属(新拟)

*Gymnanthes* Sw., Prodr.: 95. 1788; Baill., Etude Euphorb.: 530. 1858; Benth. in Benth. et Hook. f., Gen. Pl. 3:255, 337. 1880; Pax in Engl. und Prantl, Nat. Pflanzenfam. 3, 5:100. 1890; Pax et K. Hoffm. in Engl., Pflanzenr. 52 (IV, 147. V):81. 1912; in Engl. et Harms, Nat. Pflanzenfam. ed.2, 19c:191. 1931; Webster in J. Arnold Arbor. 48:387. 1967; in Ann. MO Bot. Gard. 81: 122. 1994; Esser in Blumea. 44: 168. 1999. LECTOTYPE (proposed by Britton et Shafer, 1908); *Gymnanthes elliptica* Sw.

Shrubs to trees. Indumentum absent. Leaves regularly alternate; petiole short, much shorter than blade, glandless; blade ovate to elliptic, base acute to subcordate, margin entire, apex acute to acuminate, glandless above, a row of strictly marginal or submarginal glands beneath, basal ones sometimes enlarged, secondary veins 10~16 pairs, arching and joined or not joined toward the margin, tertiary venation reticulate. Stipules broadly ovate-triangular, 0.5~2 mm long, undivided, glandless. Monoecious. Inflorescences terminal and axillary, simple or compound, pistillate and staminate flowers in same thyrse but pistillate flowers often lacking, staminate thyrse 6~60 by 2~5 mm. Bracts of staminate cymules broadly triangular to elliptic, sometimes removed by a peduncle, glandless or with a pair of globose-cylindrical glands touching the axis of the thyrse or removed by a peduncle. Staminate cymules 1~3 (~5)-flowered; bracteoles present. Staminate flowers with short to distinct (up to 2 mm long) pedicel, hardly elongating when flowering; calyx with usually 3 sepals, quite small and fused only at very base; stamens 3, filaments slightly longer than anthers. Pistillate flowers 1~3 at base of thyrse; pedicel distinct and often considerably elongating after fertilization to up to c. 20 cm in length; calyx with 3 sepals, triangular, free to basely united, glandless; ovary 3-locular, sometimes with 3 pairs of appendages but never with rows of multiple appendages; style present, stigma undivided, glandless. Fruit with distinct, often long (up to 20 cm) pedicel; 3-seeded, smooth or with 3 pairs of appendages, dry and regularly opening along the sep-

1999-08-16 收稿, 1999-12-23 收修稿。

基金项目: 云南省基金 98C096M, 中国科学院生物分类区系特别支持费, 中国科学院 KZ951-A-104 课题, 国家科委 14-602, 中国科学院百人计划支持项目。

ta; pericarp moderately thick, septa with a separate basal triangle and one, sometimes divided, vascular strand each, remaining columella alate except at base. Seeds ellipsoid, dry, smooth, without caruncle.

**Distribution:** about twenty-five species, 21 of which occur in the New World from the USA (Florida) to the Antilles and Paraguay, two in Africa (Congo Basin from Cameroun to Zaire), and two in Asia (Esser, 1999).

#### 云南裸花(新拟)

**Gymnanthes remota** (Steenis) Esser in Blumea. 44: 172, f. 3. 1999—*Sebastiania remota* Steenis, Bull. Bot. Gard. Buitenzorg III, 17: 410. 1948; Airy Shaw, Kew Bull. 36(2): 345. 1981. TYPE: Indonesia. Sumatra, Atjeh, Gajolanden, Poetjoek Angasan, van Steenis 8273 (Holotype, BO; isotype, L)

*Excoecaria yunnanensis* Y. H. Li et J. C. Xu in Acta Phytotax. Sin. 34(3): 336. 1996. TYPE: China. Yunnan, Xishuangbanna, Jinghong, Mengsong, alt. 1750 m, in montane rain forests, G. D. Tao (陶国达) 21718 (holotype, KUN). syn. nov.

**China. Yunnan:** Jinghong, Mengsong, H. Wang(王洪) 9804205, 9804190 (HITBC)

*Excoecaria yunnanensis* agrees well with *Gymnanthes remota* in all the characteristics. No conspicuous differences can be recognized between them, which strongly suggests that they are conspecific.

*Gymnanthes remota* occurs in N Sumatra in montane rain forests between 1600 ~ 2000 m in altitude. *Excoecaria yunnanensis* occurs also in montane rain forest of the same altitude in the border area between N Myanmar and S Yunnan. The similar distribution pattern is also found in many other taxa of seed plants (Li, 1994; Wu, 1991; Wu & Wang, 1983). There may be migration passages for montane plants from the Himalayas to Java of Indonesia, as suggested by Steenis (1964, 1962).

*Gymnanthes* has only two species in Asia, i. e. *G. borneensis*, which occurs in Peninsular Malaysia, C Sumatra, Lingga Archipelago, Borneo (Sabah, Sarawak, Brunei, C Kalimantan); *G. remota* occurs in N Sumatra and Yunnan. *Gymnanthes*, sensu Pax et Hoffmann (1912), is originally restricted to the Neotropics, while is pantropical in distribution and has a center of diversity in the New World in its broad sense as proposed by Esser (1999). It is conspicuous that the genus could be of a Gondwanan origin. The occurrence of *G. remota* in S Yunnan implies that *Gymnanthes* could have migrated to Asia by the drift of Indian plate.

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